

WHAT WE CLAIM IS:

1. A physical rehabilitation training and education device, comprising:
 - a model human body imitating a human body with one or more movable model joints imitating movement of a real human joint;
 - a motion controller that controls movement of the movable model joint;
 - a joint condition information memory system for storing information relating to the joint condition of said human joint; and
 - a joint condition display that shows simulated symptoms of said joint condition of the movable model joint while the motion controller controlling said motion controller based on the stored joint condition information.
2. The physical rehabilitation training and education device according to Claim 1, further comprising:
 - a rehabilitation technique information system that obtains rehabilitation technique information when rehabilitation is performed by a trainee while said trainee is applying an external repetitive force to the movable model joint with a joint condition, said joint condition is displayed thereon by the joint condition display, said system measures a rate of change of the joint condition based on an angle, a position, and a motion speed of the movable model joint due to said external repetitive force being applied thereon by the trainee; and
 - a joint condition improvement controller that is capable of displaying a simulated diagnosis of a rehabilitating symptom regarding said movable model joint and is capable of controlling the progress of the simulated condition based

on the rehabilitation technique information obtained from the trainee as the trainee performs said rehabilitation technique on said movable model joint.

3. The physical rehabilitation training and education device according to Claim 1, said motion controller further comprising:

a motion range controller that controls a motion range of the movable model joint; and

a motion resistance controller that controls a motion resistance where said reaction force is equivalent to a reaction force against said external repetitive force on the movable model joint.

4. The physical rehabilitation training and education device according to Claim 2, said motion controller further comprising:

a motion range controller that controls a motion range of the movable model joint; and

a motion resistance controller that controls a motion resistance where said reaction force is equivalent to a reaction force against said external repetitive force on the movable model joint.

5. The physical rehabilitation training and education device according to Claim 2, further comprising:

a secondary rehabilitation technique information memory that stores the secondary rehabilitation technique information showing changes in the movable model joint after performing the rehabilitation technique on the human body.

6. The physical rehabilitation training and education device according to
Claim 3, further comprising:

a secondary rehabilitation technique information memory that stores the
secondary rehabilitation technique information showing changes in the movable
model joint after performing the rehabilitation technique on the human body.

7. The physical rehabilitation training and education device according to
Claim 4, further comprising:

a secondary rehabilitation technique information memory that stores the
secondary rehabilitation technique information showing changes in the movable
model joint after performing the rehabilitation technique on the human body.

8. The physical rehabilitation training and education device according to
Claim 2, further comprising:

an evaluation criteria information memory system that stores information of
evaluation criteria where said trainee is evaluated based on a pre-established
criteria for medical treatment classified by one or more levels of rehabilitation
technique so as to evaluate the trainee based on the level of rehabilitation
technique performed; and

an evaluation system that evaluates the level of rehabilitation technique
performed by the trainee based on the rehabilitation technique information and
said evaluation criteria information for medical treatment.

9. The physical rehabilitation training and education device according to Claim 3, further comprising:

an evaluation criteria information memory system that stores information of evaluation criteria where said trainee is evaluated based on a pre-established criteria for medical treatment classified by one or more levels of rehabilitation technique so as to evaluate the trainee based on the level of rehabilitation technique performed; and

an evaluation system that evaluates the level of rehabilitation technique performed by the trainee based on the rehabilitation technique information and said evaluation criteria information for medical treatment.

10. The physical rehabilitation training and education device according to Claim 4, further comprising:

an evaluation criteria information memory system that stores information of evaluation criteria where said trainee is evaluated based on a pre-established criteria for medical treatment classified by one or more levels of rehabilitation technique so as to evaluate the trainee based on the level of rehabilitation technique performed; and

an evaluation system that evaluates the level of rehabilitation technique performed by the trainee based on the rehabilitation technique information and said evaluation criteria information for medical treatment.

11. The physical rehabilitation training and education device according to Claim 2, wherein

said rehabilitation technique information includes trainee attribute data and training history data for the particular trainee performing the rehabilitation technique; and

 said evaluation system has a system to evaluate any improvement in the level of rehabilitation technique regarding said trainee based on training history data.

12. The physical rehabilitation training and education device according to Claim 3, wherein

 said rehabilitation technique information includes trainee attribute data and training history data for the particular trainee performing the rehabilitation technique; and

 said evaluation system has a system to evaluate any improvement in the level of rehabilitation technique regarding said trainee based on training history data.

13. The physical rehabilitation training and education device according to Claim 4, wherein

 said rehabilitation technique information includes trainee attribute data and training history data for the particular trainee performing the rehabilitation technique; and

 said evaluation system has a system to evaluate any improvement in the level of rehabilitation technique regarding said trainee based on training history data.

14. The physical rehabilitation training and education device according to
Claim 8, wherein

 said information of the evaluation criteria for the medical treatment is
classified into an amateur level for a beginning trainee, a standard level for a
trainee with a predetermined level of skills and experiences, and a professional
level for a highly skilled and experienced trainee.

15. The physical rehabilitation training and education device according to
Claim 11, wherein

 said information of the evaluation criteria for the medical treatment is
classified into an amateur level for a beginning trainee, a standard level for a
trainee with a predetermined level of skills and experiences, and a professional
level for a highly skilled and experienced trainee.

16. The physical rehabilitation training and education device according to
Claim 8,

 said evaluation system further comprises a voice response system to output
an audible signal to report a load being applied on the movable model joint
based on the rehabilitation technique information.

17. The physical rehabilitation training and education device according to
Claim 11,

 said evaluation system further comprises a voice response system to output

an audible signal to report a load being applied on the movable model joint based on the rehabilitation technique information.

18. The physical rehabilitation training and education device according to Claim 1, wherein

 said movable model joint has at least one of an upper extremity section, a lower extremity section, and a digit section.

19. The physical rehabilitation training and education device according to Claim 2, wherein

 said movable model joint has at least one of an upper extremity section, a lower extremity section, and a digit section.

20. The physical rehabilitation training and education device according to Claim 3, wherein

 said movable model joint has at least one of an upper extremity section, a lower extremity section, and a digit section.

21. The physical rehabilitation training and education device according to Claim 4, wherein

 said movable model joint has at least one of an upper extremity section, a lower extremity section, and a digit section.

22. The physical rehabilitation training and education device according to

Claim 1, wherein

the simulated condition of the movable model joint exhibits symptoms of at least one of dynamic contracture, static contracture, stiffness, and joint deformation.

23. The physical rehabilitation training and education device according to

Claim 2, wherein

the simulated condition of the movable model joint exhibits symptoms of at least one of dynamic contracture, static contracture, stiffness, and joint deformation.

24. The physical rehabilitation training and education device according to

Claim 3, wherein

the simulated condition of the movable model joint exhibits symptoms of at least one of dynamic contracture, static contracture, stiffness, and joint deformation.

25. The physical rehabilitation training and education device according to

Claim 4, wherein

the simulated condition of the movable model joint exhibits symptoms of at least one of dynamic contracture, static contracture, stiffness, and joint deformation.